

IN THE CLAIMS:

Please amend the claims as follows:

- 1.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;
forming a first layer comprising titanium on the semiconductor region;
forming a second layer comprising aluminum on the first layer;
forming a third layer comprising titanium on the second layer; and
forming a pixel electrode comprising a conductive oxide film on the third layer.
- 2.(Original) A method of manufacturing a display device according to claim 1 wherein the semiconductor region comprises crystalline silicon.
- 3.(Original) A method of manufacturing a display device according to claim 1 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.
- 4.(Original) A method of manufacturing a display device according to claim 1 wherein the first layer comprises titanium nitride.
- 5.(Original) A method of manufacturing a display device according to claim 1 wherein the second layer comprises aluminum containing 1% silicon.
- 6.(Original) A method of manufacturing a display device according to claim 1 wherein the third layer comprises titanium nitride.
- 7.(Original) A method of manufacturing a display device according to claim 1 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

8.(Original) A method of manufacturing a display device according to claim 1 wherein the gate electrode is formed over the semiconductor region.

9.(Original) A method of manufacturing a display device according to claim 1 wherein the display device is an active matrix type liquid crystal display device.

10.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer comprising titanium on the semiconductor region;

forming a second layer comprising aluminum on the first layer;

forming a third layer comprising titanium on the second layer;

forming a conductive oxide film on the third layer; and

patterning the conductive oxide film so as to form a pixel electrode.

11.(Original) A method of manufacturing a display device according to claim 10 wherein the semiconductor region comprises crystalline silicon.

12.(Original) A method of manufacturing a display device according to claim 10 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

13.(Original) A method of manufacturing a display device according to claim 10 wherein the first layer comprises titanium nitride.

14.(Original) A method of manufacturing a display device according to claim 10 wherein the second layer comprises aluminum containing 1% silicon.

15.(Original) A method of manufacturing a display device according to claim 10 wherein the third layer comprises titanium nitride.

16.(Original) A method of manufacturing a display device according to claim 10 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

17.(Original) A method of manufacturing a display device according to claim 10 wherein the gate electrode is formed over the semiconductor region.

18.(Original) A method of manufacturing a display device according to claim 10 wherein the display device is an active matrix type liquid crystal display device.

19.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;
forming a first layer comprising titanium on the semiconductor region;
forming a second layer comprising aluminum on the first layer;
forming a third layer comprising titanium on the second layer;
patterning the first to third layers so as to form an electrode; and
forming a pixel electrode comprising a conductive oxide film on the third layer of the electrode.

20.(Original) A method of manufacturing a display device according to claim 19 wherein the semiconductor region comprises crystalline silicon.

21.(Original) A method of manufacturing a display device according to claim 19 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

22.(Original) A method of manufacturing a display device according to claim 19 wherein the first layer comprises titanium nitride.

23.(Original) A method of manufacturing a display device according to claim 19 wherein the second layer comprises aluminum containing 1% silicon.

24.(Original) A method of manufacturing a display device according to claim 19 wherein the third layer comprises titanium nitride.

25.(Original) A method of manufacturing a display device according to claim 19 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

26.(Original) A method of manufacturing a display device according to claim 19 wherein the gate electrode is formed over the semiconductor region.

27.(Original) A method of manufacturing a display device according to claim 19 wherein the display device is an active matrix type liquid crystal display device.

28.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer comprising titanium on the semiconductor region;
forming a second layer comprising aluminum on the first layer;
forming a third layer comprising titanium on the second layer;
patterning the first to third layers so as to form an electrode;
forming a conductive oxide film on the third layer of the electrode; and
patterning the conductive oxide film so as to form a pixel electrode.

29.(Original) A method of manufacturing a display device according to claim 28 wherein the semiconductor region comprises crystalline silicon.

30.(Original) A method of manufacturing a display device according to claim 28 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

31.(Original) A method of manufacturing a display device according to claim 28 wherein the first layer comprises titanium nitride.

32.(Original) A method of manufacturing a display device according to claim 28 wherein the second layer comprises aluminum containing 1% silicon.

33.(Original) A method of manufacturing a display device according to claim 28 wherein the third layer comprises titanium nitride.

34.(Original) A method of manufacturing a display device according to claim 28 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

35.(Original) A method of manufacturing a display device according to claim 28 wherein the gate electrode is formed over the semiconductor region.

36.(Original) A method of manufacturing a display device according to claim 28 wherein the display device is an active matrix type liquid crystal display device.

37.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer comprising titanium on the semiconductor region, wherein the first layer does not contain nitrogen;

forming a second layer comprising aluminum on the first layer;

forming a third layer comprising titanium on the second layer; and

forming a pixel electrode comprising a conductive oxide film on the third layer.

38.(Original) A method of manufacturing a display device according to claim 37 wherein the semiconductor region comprises crystalline silicon.

39.(Original) A method of manufacturing a display device according to claim 37 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

40.(Original) A method of manufacturing a display device according to claim 37 wherein the second layer comprises aluminum containing 1% silicon.

41.(Original) A method of manufacturing a display device according to claim 37 wherein the third layer comprises titanium nitride.

42.(Original) A method of manufacturing a display device according to claim 37 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

43.(Original) A method of manufacturing a display device according to claim 37 wherein the gate electrode is formed over the semiconductor region.

44.(Original) A method of manufacturing a display device according to claim 37 wherein the display device is an active matrix type liquid crystal display device.

45.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer comprising titanium on the semiconductor region, wherein the first layer does not contain nitrogen;

forming a second layer comprising aluminum on the first layer;

forming a third layer comprising titanium on the second layer;

forming a conductive oxide film on the third layer; and

patterning the conductive oxide film so as to form a pixel electrode.

46.(Original) A method of manufacturing a display device according to claim 45 wherein the semiconductor region comprises crystalline silicon.

47.(Original) A method of manufacturing a display device according to claim 45 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

48.(Original) A method of manufacturing a display device according to claim 45 wherein the second layer comprises aluminum containing 1% silicon.

49.(Original) A method of manufacturing a display device according to claim 45 wherein the third layer comprises titanium nitride.

50.(Original) A method of manufacturing a display device according to claim 45 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

51.(Original) A method of manufacturing a display device according to claim 45 wherein the gate electrode is formed over the semiconductor region.

52.(Original) A method of manufacturing a display device according to claim 45 wherein the display device is an active matrix type liquid crystal display device.

53.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer comprising titanium on the semiconductor region, wherein a portion of the first layer in contact with the semiconductor region comprises titanium silicide;
forming a second layer comprising aluminum on the first layer;
forming a third layer comprising titanium on the second layer; and
forming a pixel electrode comprising a conductive oxide film on the third layer.

54.(Original) A method of manufacturing a display device according to claim 53 wherein the semiconductor region comprises crystalline silicon.

55.(Original) A method of manufacturing a display device according to claim 53 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

56.(Original) A method of manufacturing a display device according to claim 53 wherein the first layer comprises titanium nitride.

57.(Original) A method of manufacturing a display device according to claim 53 wherein the second layer comprises aluminum containing 1% silicon.

58.(Original) A method of manufacturing a display device according to claim 53 wherein the third layer comprises titanium nitride.

59.(Original) A method of manufacturing a display device according to claim 53 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

60.(Original) A method of manufacturing a display device according to claim 53 wherein the gate electrode is formed over the semiconductor region.

61.(Original) A method of manufacturing a display device according to claim 53 wherein the display device is an active matrix type liquid crystal display device.

62.(Original) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer comprising titanium on the semiconductor region, wherein a portion of the first layer in contact with the semiconductor region comprises titanium silicide;
forming a second layer comprising aluminum on the first layer;
forming a third layer comprising titanium on the second layer;
forming a conductive oxide film on the third layer; and
patterning the conductive oxide film so as to form a pixel electrode.

63.(Original) A method of manufacturing a display device according to claim 62 wherein the semiconductor region comprises crystalline silicon.

64.(Original) A method of manufacturing a display device according to claim 62 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

65.(Original) A method of manufacturing a display device according to claim 62 wherein the first layer comprises titanium nitride.

66.(Original) A method of manufacturing a display device according to claim 62 wherein the second layer comprises aluminum containing 1% silicon.

67.(Original) A method of manufacturing a display device according to claim 62 wherein the third layer comprises titanium nitride.

68.(Original) A method of manufacturing a display device according to claim 62 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

69.(Original) A method of manufacturing a display device according to claim 62 wherein the gate electrode is formed over the semiconductor region.

70.(Original) A method of manufacturing a display device according to claim 62 wherein the display device is an active matrix type liquid crystal display device.

Please add new claims 71-102 as follows.

--71.(New) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;
forming a first layer having a barrier characteristics on the semiconductor region;
forming a second layer comprising aluminum on the first layer; and
forming a pixel electrode comprising a conductive oxide film over the second layer.

72.(New) A method of manufacturing a display device according to claim 71 wherein the semiconductor region comprises crystalline silicon.

73.(New) A method of manufacturing a display device according to claim 71 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

74.(New) A method of manufacturing a display device according to claim 71 wherein the first layer comprises titanium nitride.

75.(New) A method of manufacturing a display device according to claim 71 wherein the second layer comprises aluminum containing 1% silicon.

76.(New) A method of manufacturing a display device according to claim 71 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

77.(New) A method of manufacturing a display device according to claim 71 wherein the gate electrode is formed over the semiconductor region.

78.(New) A method of manufacturing a display device according to claim 71 wherein the display device is an active matrix type liquid crystal display device.

79.(New) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer having a barrier characteristics on the semiconductor region;

forming a second layer comprising aluminum on the first layer;

forming a conductive oxide film over the second layer; and

patterning the conductive oxide film so as to form a pixel electrode.

80.(New) A method of manufacturing a display device according to claim 79 wherein the semiconductor region comprises crystalline silicon.

81.(New) A method of manufacturing a display device according to claim 79 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

82.(New) A method of manufacturing a display device according to claim 79 wherein the first layer comprises titanium nitride.

83.(New) A method of manufacturing a display device according to claim 79 wherein the second layer comprises aluminum containing 1% silicon.

84.(New) A method of manufacturing a display device according to claim 79 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

85.(New) A method of manufacturing a display device according to claim 79 wherein the gate electrode is formed over the semiconductor region.

86.(New) A method of manufacturing a display device according to claim 79 wherein the display device is an active matrix type liquid crystal display device.

87.(New) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;
forming a first layer having a barrier characteristics on the semiconductor region;
forming a second layer comprising aluminum on the first layer;

patterning the first and second layers so as to form an electrode; and
forming a pixel electrode comprising a conductive oxide film over the second layer of the electrode.

88.(New) A method of manufacturing a display device according to claim 87 wherein the semiconductor region comprises crystalline silicon.

89.(New) A method of manufacturing a display device according to claim 87 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

90.(New) A method of manufacturing a display device according to claim 87 wherein the first layer comprises titanium nitride.

91.(New) A method of manufacturing a display device according to claim 87 wherein the second layer comprises aluminum containing 1% silicon.

92.(New) A method of manufacturing a display device according to claim 87 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

93.(New) A method of manufacturing a display device according to claim 87 wherein the gate electrode is formed over the semiconductor region.

94.(New) A method of manufacturing a display device according to claim 87 wherein the display device is an active matrix type liquid crystal display device.

95.(New) A method of manufacturing a display device comprising:
forming a thin film transistor over a substrate, the thin film transistor comprising a semiconductor region and a gate electrode with a gate insulating film interposed therebetween;

forming a first layer having a barrier characteristics on the semiconductor region;
forming a second layer comprising aluminum on the first layer;
patterning the first and second layers so as to form an electrode;
forming a conductive oxide film over the second layer of the electrode; and
patterning the conductive oxide film so as to form a pixel electrode.

96.(New) A method of manufacturing a display device according to claim 95 wherein the semiconductor region comprises crystalline silicon.

97.(New) A method of manufacturing a display device according to claim 95 wherein the conductive oxide film comprises one selected from the group consisting of indium tin oxide, zinc oxide, and nickel oxide.

98.(New) A method of manufacturing a display device according to claim 95 wherein the first layer comprises titanium nitride.

99.(New) A method of manufacturing a display device according to claim 95 wherein the second layer comprises aluminum containing 1% silicon.

100.(New) A method of manufacturing a display device according to claim 95 wherein the gate electrode comprises at least one selected from the group consisting of aluminum, silicon, titanium, tantalum, tungsten, and molybdenum.

101.(New) A method of manufacturing a display device according to claim 95 wherein the gate electrode is formed over the semiconductor region.

102.(New) A method of manufacturing a display device according to claim 95 wherein the display device is an active matrix type liquid crystal display device.--